

Work Order ID 134698

Wednesday, July 15, 2015 12:00:51 PM

134698

Page 1

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Tube Assembly
Start Date: 7/15/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 7/15/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: MLJ Date: JUL 15 2015 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3391	I

100 0.00
100 MORI SEIKI CNC LATHE LARGE
Mori Seiki 0.02
Mori Seiki CNC Lathe Large Rev: FA & Dwg D3391 Rev: I
Memo
Turn as per Folio FA599
ensure steady rest is turning true
****REMOVE STEADY REST AND MACHINIG MARKS****

1 Ø
mm
15/07/23

110 0.00
110 QC2- Inspect parts off machine FAI/FAIB
QC 0.00
Quality Control Memo

1 Ø
mm
15/07/24

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[illegible]

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Item ID: D3391-025

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Tube Assembly

Start Date: 7/15/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/15/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

QC8- Inspect parts - second check

0.00

140

QC

Memo

0.00

Quality Control

INSPECT INSIDE BORE

DAS
14
9-89

15/08/31

150

Skidtubes

0.00

150

Skidtubes

Memo

0.00

Skidtubes

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803



15-9-1

160

BENDING MACHINE - SKIDTUBES

0.00

160

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Form as per Dwg D3391 Using Bend Prog 3391025



15-9-1

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Quality Control

DAS
18
9-89

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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180

180

Skidtubes

Skidtubes

Skidtubes

Memo

0.02

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217
Wearplate Jig .

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2
previously drilled aft wearplate holes.

5-Open wearplate holes to 0.297" and c'bore as per dwg D3391

6-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391.

7-Deburr

8- Scribe batch # on fwd end



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Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Aft Tube Assembly

Stop *NS2*

Start Date: 7/15/2015 **Start Qty:** 1.00

*** 1 ***

Cust Item ID:

Required Date: 7/15/2015 **Req'd Qty:** 1.00

*** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run	Start	*NR1*
	Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

190

QC5- Inspect part completeness to step on W/O

0.00

190

OC

Memo

0.00

Quality Control

DAS
9
9-89

200

Chemical Conversion Coat per QSI005 4.1

0.00

200

HandFinish

Memo

0.01

Hand Finishing

210

QC7-Inspect Chemical Conversion Coat

0.00

210

OC

Memo

0.00

Quality Control

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Item ID: D3391-025

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Aft Tube Assembly

Stop ***NS2***Start Date: 7/15/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 7/15/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	Skidtubes	0.00							
220									
Skidtubes	Memo 1- Instal spacers as per dwg D3391 A/R Magnabond 6398 Batch: <u>131589</u> exp. date: <u>16-7-30</u> cure time 12hrs as per QSI0015	0.01							
Skidtubes	2- Grind crossbolts flush								
	3- Back drill using #9 drill								
	4- Touchup Magnabond								
	5- Deburr								
230	QC5- Inspect part completeness to step on W/O	0.00							
230									
QC	Memo	0.00							
Quality Control									

DAS
38
9-89

SEP 16 2015

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
235	Pressure Wash per QSI005 4.3	0.00							
235	HandFinish	0.01				1	15-9-16		<i>[Signature]</i>
Hand Finishing	Memo AND REALODINE AS PER PAR09-043								
240	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
240	Powdercoat	0.00				1	15-9-28		<i>[Signature]</i>
Powder Coating	Memo START TIME: 11:30 OVEN TEMPERATURE: 320 FINISH TIME: 11:00								
250	QC3- Inspect Part Finish	0.00							
250	QC	0.00				1	15-9-29		<i>[Signature]</i>
Quality Control	Memo								

DAS
15
9-00

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Required Date: 7/15/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
290	QC21- Final Inspection - Work Order Release	0.00							
290									
QC	Memo	0.00							
Quality Control									

MCS OCT 19 2015

20151019

SHA

Picklist Print

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Work Order ID: 134698

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 7/15/2015

Required Date: 7/15/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM
 IPP rev D 07.03.20 revF dwg EC
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H
 11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4095-047		Manufactured	No			260	Each	11.0000	1	1			
D4095-047									**				
Wearpad Aft													

Location	Loc Qty	Loc Code
FP001	11	
116100	7	
133502	4	

D4095-049		Manufactured	No			260	Each	33.0000	1	1			
D4095-049									**				
Wearpad Aft													

Location	Loc Qty	Loc Code
FP001	33	
126331	33	

D6014-090		Manufactured	No			100	Each	27.0000	1	1			
D6014-090									**				
ALUMINUM EXTRUSION													

Location	Loc Qty	Loc Code
LG003	27	
79742	1	
86063	26	

15/09/29

15/09/29

15/07/23

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Work Order ID: 134698

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 7/15/2015

Required Date: 7/15/2015

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

230

Each

16.0000

4

4

D3670-4-200

Bushing

Location

Loc Qty

Loc Code

FG

10

87709

10

LG002

6

132777

6

D2646

Manufactured No

270

Each

62.0000

1

1

D2646

Aft Cap

lll 15/09/29

Location

Loc Qty

Loc Code

FG

4

85848

2

90495

2

FP001

58

103306

1

114495

1

127924

6

128761

2

132325

16

132326

32

X1

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Work Order ID: 134698

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 7/15/2015

Required Date: 7/15/2015

Start Qty: 1.00

Required Qty: 1.00

D3672-1 Manufactured No

270 Each 578.0000 2 2

D3672-1

Washer, Phenolic

lll 13/09/29

Location

Loc Qty

Loc Code

FG	10	
85222	10	
FP001	138	
113581	138	
ST055	430	X 2
112218	72	
120116	3	
127322	355	

ALS4-1032-130 AE4S4-1032-130 Purchased No

260 Each 1,213.000 14 14

AI S4-1032-130

Rivnut

lll 13/09/29

Location

Loc Qty

Loc Code

st549	1213	
M132317	1213	

M133077

X 14

ALS4-1032-225 AE4S8-1032-225 Purchased No

270 Each 1,095.000 8 8

AI S4-1032-225

Rivnut

lll 13/09/29

Location

Loc Qty

Loc Code

FG	120	
M127028	120	
FP001	484	
M131582	484	
st549	491	X 8
M131582	491	

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Shop Packet Print

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Work Order ID: 134698

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 7/15/2015

Required Date: 7/15/2015

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

270

Each

1,427.000

6

6

AN3C4A

Bolt

ll 15/09/29

Location

Loc Qty

Loc Code

FG

20

M133234

x6

122814

20

FP001

907

M132551

907

ST350

500

M132317

500

AN3C5A

Purchased

No

270

Each

501.0000

4

4

AN3C5A

Bolt

ll 15/09/29

Location

Loc Qty

Loc Code

FG

5

M132930

x4

122800

5

ST

56

121708

56

ST338a

440

M131803

40

M132640

400

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Work Order ID: 134698

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 7/15/2015

Required Date: 7/15/2015

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0332R

Purchased

No

270

Each

4,223.000

10

10

NAS1149C0332R

del 15/09/25

WASHER

Location

Loc Qty

Loc Code

FP001

2140

m130325

2140

GA

257

m131618

257

ST271

1826

m129390

72

m132262

1754

X10

DART AEROSPACE LTD		Work Order: 134698
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391	Rev: I	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.00	-		Tape	L 6-11
3.500	+/-0.010	3.500	-		vern	L 6-11
Ø3.200	+/-0.010	3.197	-			
Ø3.750	+/-0.010	3.750	-			
30° x 0.060 chamfer	+/-0.010	30° x .000	-			
88.93	+/-0.030	88.93	-		Tape	L 6-11

Measured by: DAS 20 ML

Date: 15-07-30

Audited by: 9 9-89

Date: 15-07-30

HAAS Section						
1.526	+0.000/-0.030	1.510	✓		SLO8	Vern
7.500	+/-0.010	7.496	✓		SLO1	Tape
27.750	+/-0.010	27.750	✓			
31.750	+/-0.010	31.750	✓			
35.250	+/-0.010	35.250	✓			
3.300	+/-0.010	3.303	✓		SLO8	
0.200	+/-0.010	.203	✓			
3.520	+/-0.010	3.527	✓			
0.687	+0.010/-0.000	.688	✓			
R0.062	+/-0.010	.062	✓			
Ø0.484	+0.005/-0.001	.485	✓			

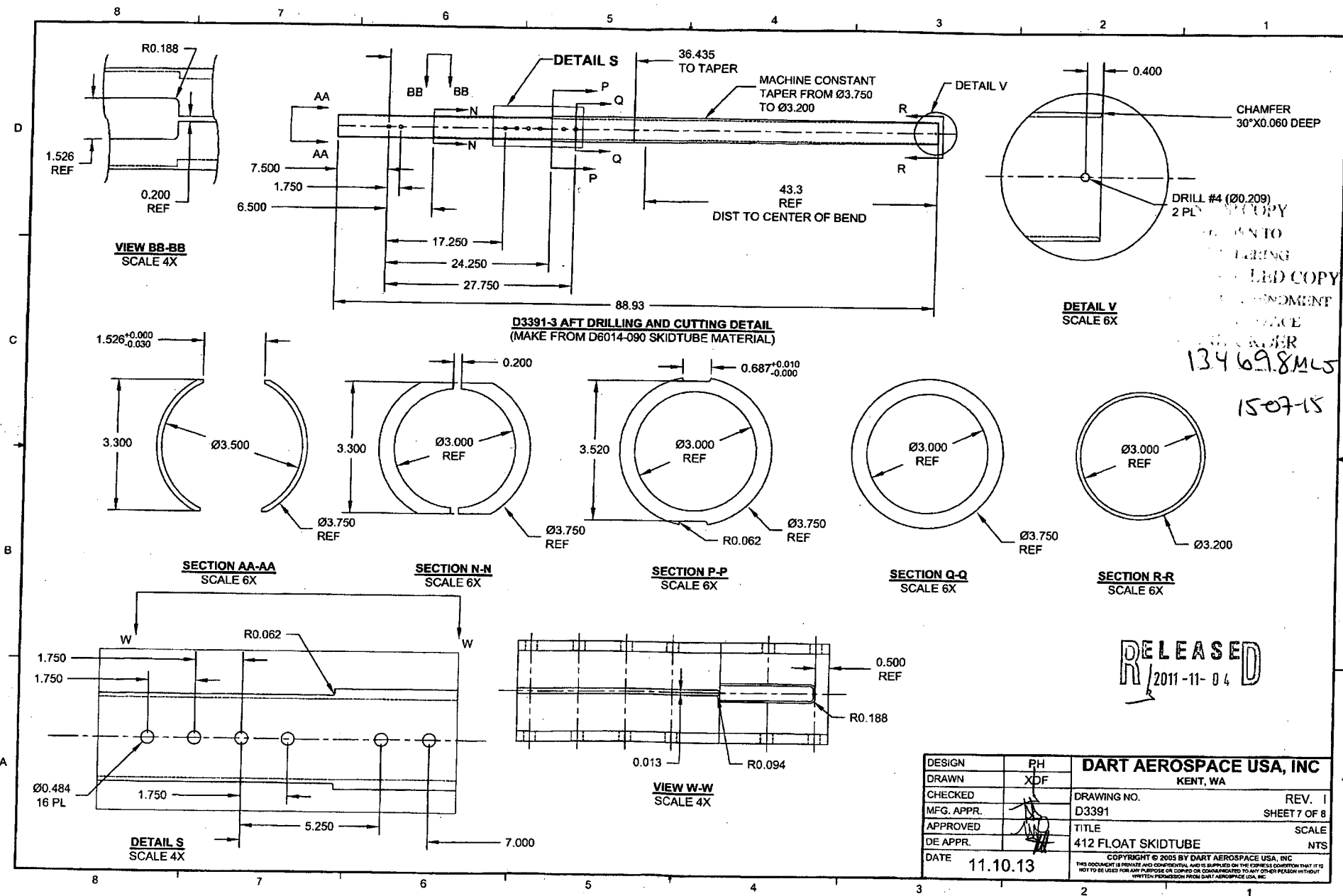
Measured by: 20 9-89

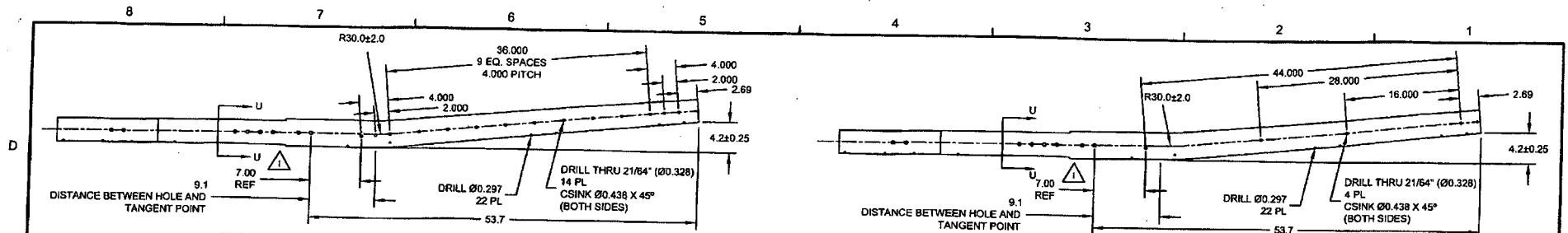
Date: 15-08-27

Audited by: DAS 14 9-89

Date: 15/08/01

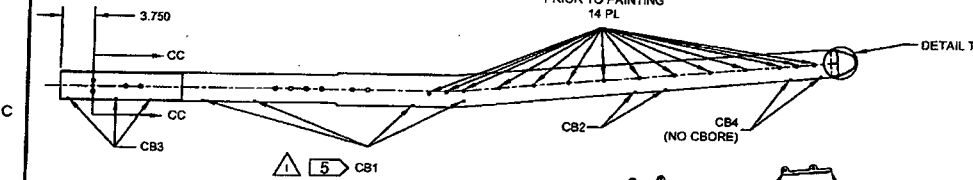
Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	





D3391-015 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER
SEAL WITH MAGNOBOND 6398
GRIND FLUSH
PRIOR TO PAINTING
14 PL



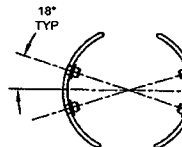
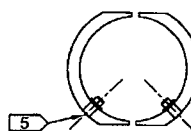
D3391-015 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST

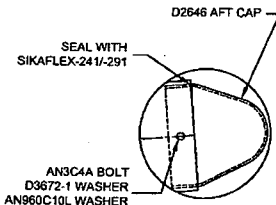
QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X		D3391-015	AFT TUBE ASSEMBLY
	X	D3391-025	AFT TUBE ASSEMBLY
1	1	D2646	AFT CAP
14	4	D3670-4200	SPACER
2	2	D3672-1	WASHER
1	1	D4095-049	WEARPAD
1	1	D4095-047	WEARPAD
1	1	D6014-090	AFT TUBE
14	14	AELS-1032-130	INSERT
8	8	AELS-1032-225	INSERT
4	4	ALS4-428-165	INSERT
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
10	10	AN960C10L	WASHER

CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

HOLES MARKED	QTY D3391-015	QTY D3391-025	CBORE	P/N
CB1	8	8	Ø0.430 X 0.170	AELS-1032-225
CB2	4	4	Ø0.430 X 0.170	AELS-1032-130
CB3	6	6	Ø0.430 X 0.040	AELS-1032-130
CB4	4	4	NONE	AELS-1032-130



DRILL Ø0.391
CBORE Ø0.516 X 0.040 DEEP
INSTALL ALS4-428-165 INSERT
4 PL



RELEASED
2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV. 1
MFG. APPR.		D3391	SHEET 8 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	11.10.13	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

